

TRANSLATION

PATENT COOPERATION TREATY

PCT

PCT Application
PCT/CN2004/000682



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| | | |
|---|---|--|
| Applicant's or agent's file reference PCT0014 | | FOR FURTHER ACTION See Form PCT/IPEA/416 |
| International application No. PCT/CN2004/000682 | International filing date (day/month/year) 24.Jun.2004 (24.06.2004) | Priority date (day/month/year) 19.Sep.2003 (19.09.2003) |
| International Patent Classification (IPC) or national classification and IPC See supplemental box | | |
| <p>Applicant SUN, Tengchen et al.</p> <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 17 sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | |
| Date of submission of the demand 11.Jan.2005(11.01.2005) | Date of completion of this report 12.Jan.2006(12.01.2006) | |
| Name and mailing address of the IPEA/CN The State Intellectual Property Office, the P.R.China, 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451 | <p>Authorized officer YU, Xiaohuan</p> <p>Telephone No. (86-10):62085430</p> | |

Box No. I Basis of the report

1. With regard to the language, this report is based on:

the international application in the language in which it was filed

a translation of the international application into _____, which is the language of a translation furnished for the purposes of:

international search (Rules 12.3(a) and 23.1(b))

publication of the international application (Rule 12.4(a))

international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:

pages _____ as originally filed/furnished
 pages * 1-14 received by this Authority on 11.Jan.2005
 pages * _____ received by this Authority on _____

the claims:

pages _____ as originally filed/furnished
 pages * _____ as amended (together with any statement) under Article 19
 pages * 15-17 received by this Authority on 11.Jan.2005
 pages * _____ received by this Authority on _____

the drawings:

pages 1-9 as originally filed/furnished
 pages * _____ received by this Authority on _____
 pages * _____ received by this Authority on _____

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

| | | |
|-------------------------------|--------------|-----|
| Novelty (N) | Claims 1-19 | YES |
| | Claims _____ | NO |
| Inventive step (IS) | Claims 1-19 | YES |
| | Claims _____ | NO |
| Industrial applicability (IA) | Claims 1-19 | YES |
| | Claims _____ | NO |

2. Citations and explanations (Rule 70.7)

D1:JP,A,9-61547

D1 discloses a rain sensor, a pair of comb-shaped electrodes are arranged on the rear surface of the detected surface. It detects rain drop by the change of the capacitance between both electrodes. Detecting circuit is provided with a CR oscillation circuit, it converts the change of capacitance between the electrodes into the change of the oscillation frequency of the oscillation circuit. Thus the detecting circuit detects the change of the oscillation frequency and outputs rainfall signals.

Novelty

It is obvious that not all the technical features of claims 1-19 are disclosed by D1, thus claims 1-19 have novelty under PCT Article 33(2).

Inventiveness

D1 is the closest prior art. The detecting circuit disclosed in D1 is differ from the detecting circuit in the invention. the detecting circuit in the invention not only can detect rain or fog, but also can control the operation of corresponding devices. At the same time, the invention has a close loop control system, which can control the work effects of devices. The detecting circuit disclosed in D1 hasn't above functions. Claims 1-19 are not obvious to a person skilled on the basis of D1,thus they have inventive step under PCT Article 33(3);

Industrial applicability

Claims 1-19 have industrial applicability under PCT Article 33(4), because the device claimed can be made or used in industry.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: International Patent Classification (IPC) or national classification and IPC

G01W1/14 (2006.01) i

G01N27/22 (2006.01) i